UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STEET
ATLANTA, GEORGIA 30303-8960

September 8, 2000

4APT-ARB

Howard L. Rhodes, Director
Department of Environmental Protection
Division of Air Resources Management
Mail Station 5500
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

SUBJ: EPA's Review of Proposed Title V Permit No. 0570040-002-AV
Tampa Electric Company - F. J. Gannon Station

Dear Mr. Rhodes:

The purpose of this letter is to notify the Florida Department of Environmental Protection (FDEP) that the U.S. Environmental Protection Agency (EPA) formally objects to the issuance of the above referenced proposed title V operating permit for the Tampa Electric Company - F. J. Gannon Station, located in Hillsborough County, Florida, which was received by EPA, via e-mail notification and FDEP's web site, on July 26, 2000. This letter also provides our general comments on the proposed permit.

Based on EPA's review of the proposed permit and the supporting information received for this facility, EPA objects, under the authority of Section 505(b) of the Clean Air Act ("the Act") and 40 C.F.R. § 70.8(c) (see also Florida Regulation 62-213.450), to the issuance of the proposed title V permit for this facility. The basis for EPA's objection is that the permit incorrectly identifies several requirements as "not Federally enforceable," does not fully meet the periodic monitoring requirements of 40 C.F.R. § 70.6(a)(3)(i), does not contain conditions that assure compliance with all applicable requirements, as required by 40 C.F.R. § 70.6(a), and contains Acid Rain requirements that do not adequately implement the Acid Rain regulations applicable to this facility. Pursuant to 40 C.F.R. § 70.8(c), this letter and its enclosure contain a detailed explanation of the objection issues and the changes necessary to make the permit consistent with the requirements of 40 C.F.R. Part 70 and assure compliance with applicable requirements of the Clean Air Act. The enclosure also contains general comments applicable to the permit.

Section 70.8(c) requires EPA to object to the issuance of a proposed permit in writing within 45 days of receipt of the proposed permit (and all necessary supporting information) if EPA determines that the permit is not in compliance with the applicable requirements under the Act or the requirements of 40 C.F.R. Part 70. Section 70.8(c)(4) of the title V regulations and

Section 505(c) of the Act further provide that if the State fails to revise and resubmit a proposed permit within 90 days to satisfy the objection, the authority to issue or deny the permit passes to EPA, and EPA will act accordingly. Because the objection issues must be fully addressed within the 90 days, we suggest that the revised permit be submitted in advance in order that any outstanding issues may be resolved prior to the expiration of the 90-day period.

If you have any questions or wish to discuss this further, please contact Mr. Gregg Worley, Chief of the Operating Source Section, at (404) 562-9141. Should your staff need additional information, they may contact Ms. Elizabeth Bartlett, Florida Title V Contact, at (404) 562-9122 or Ms. Lynda Crum, Associate Regional Counsel, at (404) 562-9524.

Sincerely,

/s/ James S. Kutzman, for

Winston A. Smith
Director
Air, Pesticides and Toxics
Management Division

Enclosure

cc: Ms. Karen A. Sheffield, P.E., TEC- F. J. Gannon
Mr. Scott Sheplak, P.E., FDEP (via e-mail)

Enclosure

U.S. EPA Region 4 Objection
Proposed Part 70 Operating Permit
Tampa Electric Company
F. J. Gannon Station
Permit no. 0570040-002-AV

I EPA Objection Issues

1. Federally Enforceable Requirements: Section II, conditions 6, 7, 11 and 12 are identified as "not federally enforceable." Conditions 6 and 7 are federally enforceable because they are contained in the federally approved portion of the Florida SIP. Conditions 11 and 12 address the requirement to provide compliance notifications and notification of potential permit modifications to the Environmental Protection Commission of Hillsborough County (EPCHC) and EPA, and provide the appropriate mailing addresses. Pursuant to 40 C.F.R. §70.6(c)(5)(iv), compliance certifications shall be submitted to the Administrator as well as to the permitting authority. Therefore, these conditions are also federally enforceable since they are part of the required elements of a title V permit.

2. Appropriate Averaging Times: The emission limits in conditions D.5, E.3, F.1, F.2, F.3, G.1, G.2, G.3, H.1, H.2, H.3, I.1, I.2, I.3, J.2, J.6, J.33.a., and K.2 do not contain averaging times. Appropriate averaging times must be added to the permit in order for the limits to be practicably enforceable. This deficiency may be addressed by including a general condition in the permit stating that the averaging times for all specified emission standards are tied to or based on the run time of the test method(s) used for determining compliance.

   Based on review of operating permits for F. J. Gannon Steam Generators No. 1 through No. 6, Region 4 recommends that condition J.2 specify an averaging time of two hours for particulate emissions from these units. Since the facility already uses this averaging time to evaluate compliance with the particulate matter limit for all but one of these units, the Department should include the same averaging time in the title V permit.

3. Compliance Assurance - Excess Emissions: Section III, conditions A.6, B.7, and C.5 allow TECO to bypass the ESP's and vent emissions from the slag tanks directly to the atmosphere, for the purposes of providing worker safety during maintenance, and to prevent equipment damage in the case of a loss of flow through the normal duct system to the ESP. While EPA Region 4 recognizes that such ventings may be necessary in limited circumstances, these conditions, as written, are overly broad for the circumstances they are intended to cover and

appear to automatically exempt all events of excess emissions from the slag tanks. An automatic exemption from enforcement, such as this, is known as a "No Action" Assurance. No action assurances are expressly prohibited by EPA (Courtney M. Price, Assistant Administrator for Enforcement and Compliance Monitoring, Policy Against "No Action" Assurances, November 16, 1984). The decision as to whether or not any particular excess emission event may or may not be allowed should be left up to the discretion of the FDEP and EPCHC, and should be evaluated on a case by case basis.

In addition, this excess emissions variance appears to conflict with the circumvention prohibition under 62-210.650, F.A.C., which states that "No person shall circumvent any air pollution control device, or allow the emission of air pollutants without the applicable air pollution control device operating properly." While Florida regulations allow FDEP to extend the duration of excess emissions under 62-210.700(5), F.A.C., there does not appear to be a similar variance allowed for the circumvention prohibition referenced above. In addition, slag tank venting to prevent equipment damage due to loss of flow through the normal duct system to the ESP appears to fall under existing malfunction provisions of the excess emissions requirements, so it is unclear why a specific variance is provided. Furthermore, item (b) of these conditions appears to limit the duration of these events to two-hours, as does the excess emissions rules, so the utility of a separate condition is also unclear.

Finally, one portion of this condition does not make sense as it is written. This portion of the condition states:

> *The permittee shall notify the Southwest District and EPCHC should a situation develop which requires the venting of more than the equivalent of one slag tank volume per each emergency to correct the situation in a timely manner, not to exceed two hours.*

It appears as though this is a run-on sentence. The first part of the sentence, that requires the reporting of excess emissions of greater than one slag tank volume, appears to have been combined with a sentence that requires excess emissions to be corrected in a timely manner, and that does not allow excess emissions to exceed two hours. This portion of the condition should be changed so that it is clearer to the reader.

4. Periodic Monitoring: As outlined below, the proposed title V permit for the F. J. Gannon Station does not contain adequate periodic monitoring requirements to assure compliance with all emissions and operational limits contained in the permit. All Title V permits must contain monitoring that is sufficient to assure

compliance with the applicable permit requirements. 40 C.F.R. Part 70.6(a)(3)(i)(B) requires that permits include periodic monitoring that is sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the applicable emission limits. In addition to assuring compliance, a system of periodic monitoring should also provide the source with an indication of their emission unit's performance, so that periods of excess emissions and violations of the emission limits can be minimized or avoided. Therefore, periodic monitoring requirements sufficient to assure compliance with all permit limits must be incorporated in the permit or a technical demonstration must be included in the statement of basis explaining the rationale for the approach used by the Department to address periodic monitoring requirements for these units.

a. Maximum Operating Rates: Conditions F.1, G.1, H.1, and I.1 specify the maximum operating rates for fly ash and fuel handling equipment identified as, EU-009, EUs -010 and -012, EU-011, and EUs -013 through -018, respectively. However, the permit does not provide for periodic monitoring sufficient to assure compliance with these operating rate limitations. For other units included in this permit, there is a permitting note clarifying that these conditions are not included as limits, but as a basis for determining the percent capacity of the units during source testing (see A.1, and B.1). Please add periodic monitoring provisions to the permit to address conditions F.1, G.1, H.1, and I.1, or add clarifying language to discuss why these conditions are not included as limits.

b. Normal Operating Temperature: Conditions J.33.b and J.34.d only allow boiler cleaning waste and used oil, respectively, to be fed to boilers 1 through 6 if these units are operating at "normal source operating temperatures."

5. Applicable Requirements - Consent Decree: The Gannon permit requires TECO to comply with the Consent Decree (CD) entered into between the United States and TECO on February 29, 2000; however, the specific terms and conditions of the Consent Decree have not been incorporated into the permit. Part 70.6(a)(1) requires a title V permit to include those operational requirements and limitations that assure compliance with all applicable requirements at the time of permit issuance. Where necessary, 70.5(c)(8) requires a permit to include a schedule of compliance that is at least as stringent as that contained in any judicial consent decree, leading to compliance with any applicable requirements for which the source will be in noncompliance at the time of permit issuance. Therefore, the text of this permit should be reworked to incorporate the terms and conditions of the Consent Decree. Further, because the permit and Consent Decree contain so many related provisions, facility personnel would benefit from having all the relevant requirements included in one document. For example, EPA Region 4

recommends that at least the following changes/additions be incorporated into the permit:

a. The consent decree requires that at least 200 MW of coal-fired generating capacity at the Gannon Station be repowered by 5/01/03, and that at least the difference between 550 MW of coal-fired generating capacity and the amount of coal-fired generating capacity that was repowered prior to 5/01/03, be repowered by 12/31/04. In addition, all coal-fired boilers (six units totaling 1194 MW) at the Gannon Station are to be shut down by 12/31/04, and no combustion of coal is allowed at the plant after 1/01/05. These shut down units are allowed to be kept in reserve/standby if not repowered. However, if the reserve/standby units are ever to be restarted, then a PSD permit is required prior to the restart.

   The consent decree has left TECO the latitude to determine which units to repower, which units to leave in reserve/standby, the exact schedule of repowering and shutdown, etc.. Therefore, the permit does not need to specify which units are to be repowered/shutdown, or specify anything concerning the new emission units that will be constructed as a result of the repowering projects (emission limits, controls, etc.), until TECO applies to amend the permit when required to do so. However, the general requirements (minimum MWs to be repowered, shutdown of remaining units, no further combustion of coal, etc.) should be included in the permit, because these are requirements of a federally enforceable consent decree that will not change, and will take effect within the five year time period prior to permit expiration.

b. Change the renewal application due date to January 1, 2004 and the expiration date to December 31, 2004. Paragraph 42 of the CD requires TECO to submit a permit application or request an amendment to the existing permit no later than January 1, 2004. Paragraph 28 of the CD requires TECO to stop burning coal at any unit at Gannon no later than January 1, 2005.

c. Change paragraphs A.2, B.2 and C.2 to reflect TECO's commitment to stop burning coal no later than January 1, 2005 by including a statement that it will be switching fuels to only use natural gas no later than January 1, 2005.

d. The permit should clearly reflect TECO's commitment, as outlined in Paragraph 46 of the CD, to either use its emission allowances internally or give them up. It does not appear to do so at all.

6. <u>Acid Rain Requirements:</u> The following items from Section IV, Phase II Acid Rain Part, must be corrected in order to make the requirements consistent with the Acid Rain regulations applicable to this facility:

a. Phase II of the Acid Rain Program began on January 1, 2000, which is the date by which initial Phase II permits for existing phase II units are to be effective (40 C.F.R. 72.73(b)(2), "State Issuance of Phase II Permits". However, the effective date proposed for the title V permit containing the Phase II Acid Rain Part for the F.J. Gannon Station is January 1, 2001. The permit needs to clarify that the effective period for the Phase II Acid Rain Part is five years beginning January 1, 2000.

b. Section IV. "Phase II Acid Rain Part", lists the Acid Rain, Phase II SO_2 allowance allocations for the F.J. Gannon units GN03, GN04, GN05 and GN06 for the years 2001 through 2005. The SO_2 requirements under the Acid Rain Program are effective beginning January 1, 2000, therefore, the permit needs to be revised to include allowance allocations for these units for the year 2000.

c. Section IV. "Phase II Acid Rain Part", indicates the Phase II NO_x limitations for the years 2001 through 2004 for the F.J. Gannon units GN03, GN04, GN05 and GN06. The Phase II NO_x Averaging Plan submitted by the source (signed December 20, 1999) indicates that the plan is to be effective for the years 2000 through 2004. The permit needs to be revised to include NO_x limits for the year 2000. In addition, since the proposed expiration date of the Title V permit is December 31, 2005, the permit will need to be revised to include Phase II NO_x emission limits for the year 2005. The permits will also need to contain a Phase II NO_x Compliance Plan submitted by the source indicating how the source plans to comply with the Phase II NO_x emission limits for the year 2005.

d. The heat input value specified under the NOx limit for the units GN03, GN04 do not match those specified in the Phase II NOx Averaging Plan submitted by TECO. Please revise the Phase II Acid Rain Part of the permit to be consistent with the Averaging Plan.

II General Comments

1. General Comment: Please note that EPA reserves the right to enforce any noncompliance, including any noncompliance related to issues that have not been specifically raised in these comments. After final issuance, this permit shall be reopened if EPA or the permitting authority determines that it must be revised or revoked to assure compliance with applicable requirements.

2. Placard Page - Acid Rain: The "Referenced attachments made part of this permit," should include the Phase II Acid Rain Part application referred to in

Section IV of the permit (Phase II SO2 Acid Rain Application/Compliance Plan received December 26, 1995).

3. Section II, Condition 10: 40 C.F.R. Part 70.6 (c)(5)(iii) lists the necessary components of a Title V compliance certification, and requires that those components be included in Title V permits. While Facility-Wide Condition # 10 of the permit does require that the source submit an annual compliance certification, the condition does not specify that the compliance certification contain those required components. This portion of the permit should specifically state that the source is required to submit compliance certifications consisting of the required components. Further, those required components should be listed in the permit.

   In this case the list from 40 C.F.R. Part 70.6 (c)(5)(iii) is contained at Appendix TV-3. While it is sufficient to include the list in an Appendix to the permit, the required compliance certification components should at least be mentioned in the permit at the condition requiring the source to submit a Title V compliance certification to EPA. This will allow the requirement to be clear and enforceable. Therefore, Facility-Wide Condition # 10 of the permit should mention the required components listed at 40 C.F.R. Part 70.6 (c)(5)(iii), and reference the list contained at Appendix TV-3.

4. Section III, Conditions A.2.b, B.2.b, and C.2.b: These conditions cover the methods of operation for Steam Generators No. 1 through No.6, and state that new No. 2 fuel oil may be burned during startup, shutdown and malfunctions, and "includes, but is not limited to the emission unit, a new cyclone/mill or flame stabilization." Please explain what the "new cyclone/mill" is and how it is associated with the facility.

5. Section III, Condition A.5.c.i.: This condition references the maximum percentage of wood derived fuel (W.F.) allowed to be ciphered with coal in Unit No. 3, which is "*based on tested W.F. blend ration (6.3%) + 10% = 7%*." It is unclear how the 7 percent value was established given this calculation. Please clarify how the temporary 7 percent limit was calculated and revise this condition as appropriate.

6. Section III, Condition E.1 - Subsection E contains the permit conditions that are applicable to the fuel yard. Condition E.1 limits the twelve month throughput of coal and auxiliary fuel, consisting of TDF and W.F. (W.F. has been defined in the permit as "Wood Derived Fuel", and EPA Region 4 assumes that TDF stands for "Tire Derived Fuel"). While subsections of the permit pertaining to particular emission units did contain conditions that allow the combustion of W.F., none of the conditions for these emission units mentioned anything about allowing for the combustion of TDF. If TDF is to be combusted in any of the emission units at

this facility, then the permit conditions that specify the authorized fuels must state that TDF is allowed to be burned. Further, any applicable limits related to the combustion of TDF must also be included in the permit.

7. Section III, Condition E.7: This condition refers to the limitations in condition E.3. Please verify whether this condition should reference condition E.4 instead.

8. Section III, Condition E.10: This condition refers to the emissions discussed in condition E.6. Please verify whether this condition should reference condition E.3 instead.

9. Periodic Monitoring: As you are aware, on April 14, 2000, the U.S. Court of Appeals for the D.C. Circuit issued an opinion addressing industry's challenge to the validity of portions of EPA's periodic monitoring guidance. See, Appalachian Power Co. v. EPA, No. 98-1512 (D.C. Cir., April 14, 2000). The Court found that "State permitting authorities [ ] may not, on the basis of EPA's guidance or 40 C.F.R. 70.6(a)(3)(i)(B), require in permits that the regulated source conducts more frequent monitoring of its emissions than that provided in the applicable State or Federal standard, unless that standard requires no periodic testing, specifies no frequency, or requires only a one-time test." While the permit contains testing from “time to time,” as discussed in the court opinion, EPA does not consider these conditions sufficient to ensure compliance. In light of the court case, EPA is withholding formal objection regarding the adequacy of the periodic monitoring included in the permit for the following pollutants: Visible Emissions (VE) and Particulate Matter (PM). EPA’s concerns are outlined below:

   a. Visible Emissions: The permit does not contain adequate periodic monitoring for visible emissions to demonstrate compliance with the limits specified in conditions D.5, E.3, F.2, G.2, H.2, I.3, or K.2. Although the source is required to perform an annual method 9 test for each emission unit, a test only once per year will not be sufficient to assure that the visible emission standard for each emission unit has been complied with on a continuous basis. This is especially true for several of the emission units that are subject to a relatively stringent visible emissions standard (i.e. no more than 5 % opacity is allowed). It was noted, however, that Operation and Maintenance (O & M) Plans for Particulate Matter have been established for many of these units (see conditions E.9, F.5, G.5, and H.5) and that non-title V operating permits contain O & M plans for the units covered under subsections D and I. One option to resolve this comment would be to include language in the permit which creates an enforceable link between the O & M activities and the associated VE limits in the above-reference permit conditions, such that the visual inspections/observations required in the O & M plans would qualify as periodic monitoring. Another option would be to include new conditions in

the permit to require the source to perform and record the results of a qualitative observation of opacity over a specified frequency for each emission unit that is subject to a visible emission standard. The records of these observations should indicate whether or not any abnormal visible emissions are detected and include color, duration, and density of the plume, as well as the cause and corrective action taken for any abnormal visible emissions. If an abnormal visible emission is detected, a Method 9 survey shall be conducted within 24 hours of the qualitative survey. As an alternative to the approaches described above, a technical demonstration can be included in the statement of basis explaining why the State has chosen not to require any additional testing to assure compliance with the VE emission limitations for these units. The demonstration needs to identify the rationale for basing the compliance certification on data from a short-term test performed once a year.

b. Particulate Matter: The permit does not contain adequate periodic monitoring for particulate matter emissions to demonstrate compliance with the limits specified in conditions F.3, G.3, H.3, I.2, or J.2. All Title V permits must contain monitoring that is sufficient to assure compliance with the applicable permit requirements. In particular, 40 C.F.R. Part 70.6 (a)(3)(B) requires that permits include periodic monitoring that is sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the applicable emission limits. In addition to demonstrating compliance, a system of periodic monitoring will also provide the source with an indication of their emission unit's performance, so that periods of excess emissions and violations of the emission limits can be minimized or avoided.

While the permit does include parametric monitoring of emission unit and control equipment operations in the O & M plans for these units (see conditions A.4, B.5, C.4, F.5, G.5, and H.5), the parametric monitoring scheme that has been specified is not adequate. The parameters to be monitored and the frequency of monitoring have been specified in the permit, but the parameters have not been set as enforceable limits. In order to make the parametric monitoring conditions enforceable, a correlation needs to be developed between the control equipment parameter(s) to be monitored and the pollutant emission levels. The source needs to provide an adequate demonstration (historical data, performance test, etc.) to support the approach used. In addition, an acceptable performance range for each parameter that is to be monitored should be established. The range, or the procedure used to establish the parametric ranges that are representative of proper operation of the control equipment, and the frequency for re-evaluating the range should be specified in the permit. Also, the permit should include a condition requiring a performance test to be conducted if an emission unit operates outside of the acceptable range for a specified percentage of the normal operating time. The

Department should set the appropriate percentage of the operating time that would serve as trigger for this testing requirement.

As an alternative to the approaches described above, a technical demonstration can be included in the statement of basis explaining why the State has chosen not to require any additional testing to assure compliance with the PM emission limitations for these units. The demonstration needs to identify the rationale for basing the compliance certification on data from a short-term test performed once a year.

c. Particulate Matter: Condition I.2 contains particulate matter limits of 0.99 tons per year and 0.19 pounds per hour for each of the six fuel bunkers and rotoclones. This condition exempts these units from the provisions of the particulate matter RACT, which is allowed under 62-296.700(2)(c), by limiting emissions from each unit to less than one ton per year. However, the permit does not provide a means to ensure that particulate matter emissions actually remain below this threshold. Condition I.5 states that these units are also subject to the Common Conditions outlined in Subsection K, and condition K.2, allows for compliance with a five percent visible emissions limit in lieu of particulate matter stack testing for units equipped with a baghouse. Since the fuel bunkers covered under Subsection I are not equipped with baghouses, the allowance in condition K.2 does not appear to apply for these units. There is also a visible emissions limit of 20 percent in condition I.3. To resolve this issue, please provide discussion in the statement of basis which gives assurance that emissions from these units qualify for the exemption, and demonstrate that sufficient monitoring is provided in the permit to assure compliance with the particulate matter limit.